USER MANUAL

GlasCraft
DISPENSING EXCELLENCE

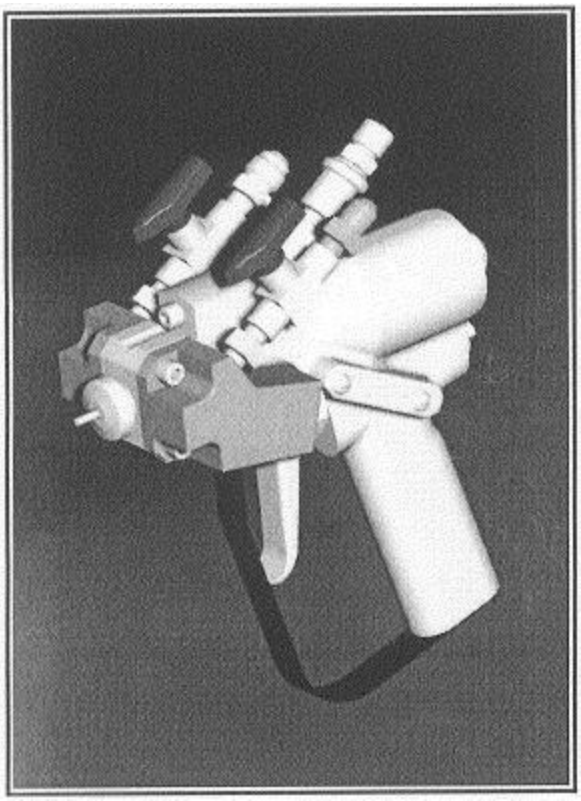
Probler

Dispense Gun

For use with non-flammable foam and polyurea.
Not for use in explosive atmospheres.

90-110 psi (0.62-0.76 MPa, 6.2-7.6 bar) Air Inlet Pressure Range
3000 psi (20.7 MPa, 207 bar) Maximum Static Fluid Pressure

Important Safety Instructions
Read all warnings and instructions in this manual. Save these instructions.



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An ISO 9001 Approved Company

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Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

⚠ WARNING

TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
- Always wear impervious gloves when spraying or cleaning equipment.

PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:

- Protective eyewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

SKIN INJECTION HAZARD

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.

- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Close material shutoff valves and shutoff or disconnect air supply when not spraying.
- Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.

BURN HAZARD

Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

Warnings

⚠ WARNING

EQUIPMENT MISUSE HAZARD

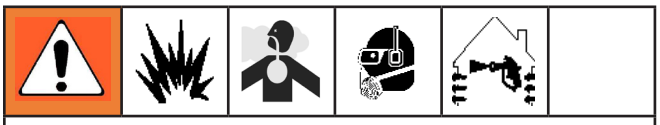
Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

PRESSURIZED ALUMINUM PARTS HAZARD

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.

Isocyanate Hazard



Spraying materials containing isocyanates creates potentially harmful mists, vapors, and atomized particulates.

Read material manufacturer's warnings and material MSDS to know specific hazards and precautions related to isocyanates.

Prevent inhalation of isocyanate mists, vapors, and atomized particulates by providing sufficient ventilation in the work area. If sufficient ventilation is not available, a supplied-air respirator is required for everyone in the work area.

To prevent contact with isocyanates, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons, and goggles, is also required for everyone in the work area.

Material Self-Ignition

Some materials may become self-igniting if applied too thickly. Read material manufacturer's warnings and material MSDS.

Moisture Sensitivity of Isocyanates

Isocyanates (ISO) are catalysts used in two component foam and polyurea coatings. ISO will react with moisture (such as humidity) to form small, hard, abrasive crystals, which become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity. If used, this partially cured ISO will reduce performance and the life of all wetted parts.

The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

To prevent exposing ISO to moisture:

- Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. **Never** store ISO in an open container.
- Keep the ISO lube pump reservoir filled with Graco Throat Seal Liquid (TSL), Part 206995. The lubricant creates a barrier between the ISO and the atmosphere.
- Use moisture-proof hoses specifically designed for ISO, such as those supplied with your system.
- Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use.
- Never use solvent on one side if it has been contaminated from the other side.
- Always park pumps when you shutdown.
- Always lubricate threaded parts with Part 217374 ISO pump oil or grease when reassembling.

Keep Components A and B Separate

CAUTION
To prevent corss-contamination of the equipment's wetted parts, never interchange component A (isocyanate) and component B (resin) partrs. The gun is shipped with the A side on the left. The fluid manifold, fluid housing, side seal assembly, check valve cartridge, and mix chamber are marked on the A side.

Foam Resins with 245 fa Blowing Agents

New foam blowing agents will froth at temperatures above 90°F (33 °C) when not under pressure, especially if agitated. To reduce frothing, minimize preheating in a circulation system.

Changing Materials

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Always clean the fluid inlet strainers after flushing.
- Check with your material manufacturer for chemical compatibility.
- Most materials use ISO on the A side, but some use ISO on the B side.
- Epoxies often have amines on the B (hardener) side. Polyureas often have amines on the B (resin) side.

Section 1 - Installation: Introduction

Introduction

Before operating, maintaining or servicing any **GlasCraft** system, read and understand all of the technical and safety literature provided with **GlasCraft** products. If you do not have the proper or related manuals and safety literature for your **GlasCraft** system, contact your **GlasCraft** distributor.

In this **GlasCraft** technical and safety publication, the following advisories will be provided where appropriate:

Information about the procedure in progress.

⚠ WARNING

Indicates a hazardous situation that can result in death or serious injury.

The information in this document is intended only to indicate the components and their normal working relationship typical use. Each assembly should be directed by a **GlasCraft** distributor or made from the **GlasCraft** Assembly instructions provided.

This manual provides information for the assembly, operation, maintenance and service of this **GlasCraft** product as used in a typical configuration. While it lists standard specifications and procedures, some deviations may be found.

In order to provide our users with the most up-to-date technology possible, we are constantly seeking to improve products. If a technological change occurs after a product is on the market, we will implement that technology in future production and, if practical, make it available to current users as a retrofit, update or supplement. If you find a discrepancy between your unit and the available documentation, contact your **GlasCraft** distributor to resolve the difference.

Careful study and continued use of this manual will provide a better understanding of the equipment and process, resulting in more efficient operation, longer trouble-free service and faster, easier troubleshooting.

Section 1 - Installation: Standard Equipment

Standard Equipment	
Part Number	**Description**
GCP1RX	Flat Probler Dispense Gun
GCP1FX	Round Probler Dispense Gun
313265	User Manual

Section 1 - Installation: Equipment Assembly

How The Gun Works

The Probler Gun is used to spray or pour two-component, low viscosity polurethane foam materials at outputs up to 60 pounds per minute. The gun features an air-assited full-finger trigger and a patented solvent-free automatic air-purge cleaning system.

The trigger actuates a small valve in the gun handle that controls the flow of air into the piston assembly. When the trigger is pulled, air flows through the valve to the front of the piston. Air pressure forces the piston towards the rear of the gun, simultaneously closing off the purge air and moving the mixing chamber to a position where the mixing chamber orifices are aligned with the orifices in both the side block seal and check valve assemblies.

The proper alignment of the orifices is determined by the setting of the Set Screw, p/n GC0143, located at the rear of the piston assembly. This set screw determines the length of travel of the air piston and has been preset at the factory and should not require adjustment. (SEE MAINTENANCE SECTION)

The two fluids (isocyanate and polyol) then flow through the material shut-off valves, seal, and check valve assemblies and into the mixing chamber. The two fluids impinge against one another and exit the mixing chamber in a swirling, conical spray pattern.

When the trigger is released, the mixing chamber returns to its original position and purge air flows into the mixing chamber housing. The front tip o-ring, keeps air purge inside the gun head, forcing all of the air through the orifices in the mixing chamber, for a complete, total and constant purge.

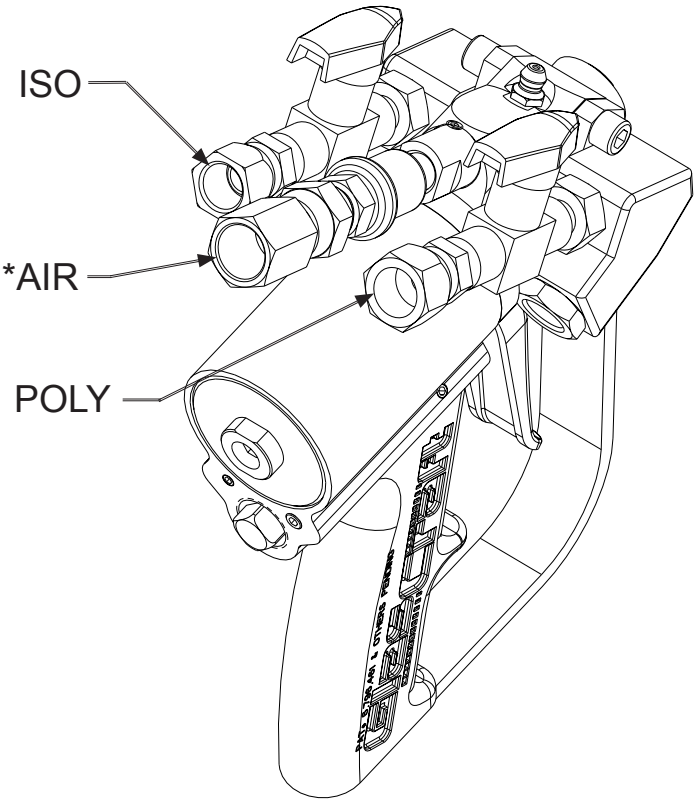
This purge air continues to flow through the mixing chamber until the air switch, is pulled up to shut-off all air to the gun; or until the trigger is pulled again.

GlasCraft Equipment

Air Hose is ¼ in. NPS

JIC and SAE Fittings ***DO NOT*** require the use of PTFE tape.

Once the fittings are attached and tight, refer to system manuals for start-up instructions.



*Fitting GC2394 is an unattached part that may need to be connected to the air hose first, then connected to the gun, depending on air hose fitting.

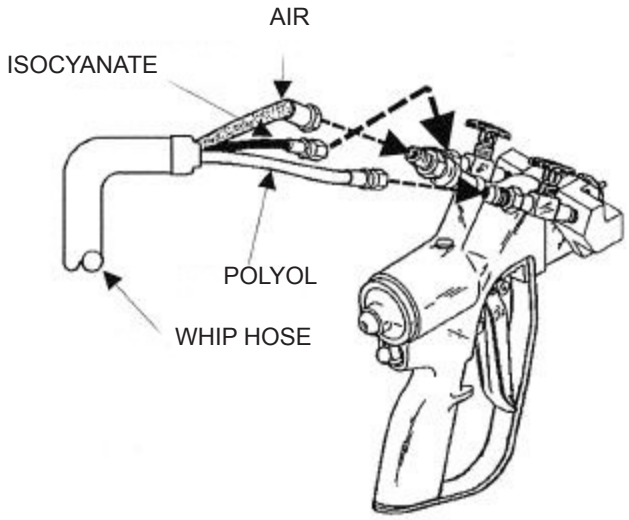
Section 1 - Installation: Equipment Assembly

Assembly Instructions

Refer to specific system user manual for complete system installation.

See GCP1RX Gun illustration during instructions.

1. Connect whip hose to gun assembly. The swivel fittings on the whip hose assembly are sized differently and will attach only one way. (Match like sized fittings.) Also connect the air hose assembly to the gun at this time.



2. Fluid hose connections between console and gun should now be complete. Ensure all hose and gun fittings are tight before proceeding:

Section 2 - Operation: Start-Up Instructions

Refer to specific system user manuals for complete system installation.

Pre operation Checklist

Check that all fittings are tight and air regulators are turned to ***"zero pressure"***.

⚠ WARNING

Do not place any part of the body in the path of the material spray.
Do not point the gun at or near other personnel.
Do not look into the mixing chamber orifice at any time.
Because of the hazardous materials used in this equipment, it is recommended that the operator use an air mask, goggles, protective clothing, and other safety equipment as prescribed by current regulations, recommendations of the chemical suppliers, and the laws in the area where the equipment is being used.

Operating Requirements

- 8-10 CFM at 90-110 psi (0.62-0.76 MPa, 6.2-7.6 bar)
- MAXIMUM Static Fluid Pressure - 3000 psi (20.7 MPa, 207 bar)

⚠ WARNING

The GlasCraft Probler Gun is designed and manufactured to operate at a maximum static fluid pressure not to exceed 3000 psi (20.7 MPa, 207 bar). When attached to a GlasCraft proportioning system, this pressure will not be exceeded. However, if the GlasCraft Probler Gun is installed on any other manufacturer's self-designed equipment, great care must be taken to ensure that the maximum static fluid pressure not be exceeded.

If the gun is being used for short periods of spraying, GlasCraft recommends that the purge air be left ON.

⚠ WARNING

If purge air is to be turned OFF, BOTH MATERIAL SHUT-OFF VALVES, MUST BE TURNED TO THEIR "OFF" POSITION BEFORE TURNING "OFF" THE PURGE AIR !
Failure to follow this procedure will possibly result in the gun head becoming encased with mixed product.

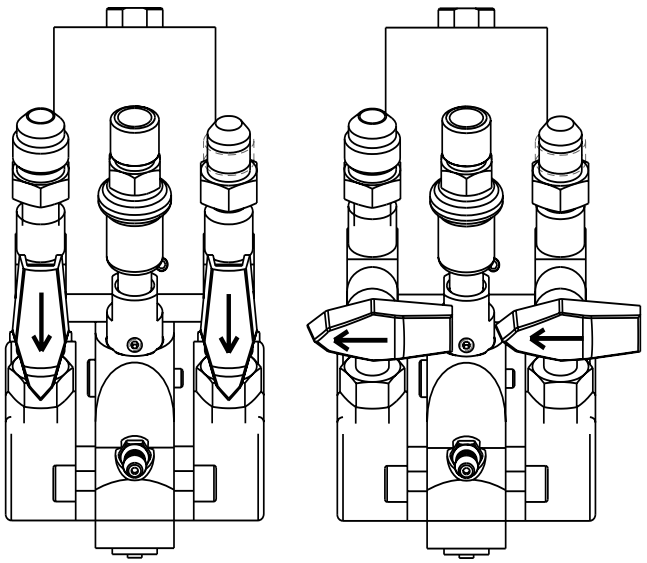
For proper purging following use, the air switch must be left OPEN for at least 15 SECONDS after the trigger has been released.

The flow of material into the mixing chamber is controlled by the ON or OFF position of the two material shut-off valves.

Both material shut-off valves must be FULLY OPEN during dispensing and must be FULLY CLOSED during service or extended shut-down periods.

⚠ WARNING

BEFORE REMOVING SIDEBLOCK SCREWS, BOTH MATERIAL SHUT-OFF VALVES MUST BE TURNED TO THEIR "OFF" POSITION. TRIGGER GUN SEVERAL TIMES TO DEPRESSURIZE GUN .
Failure to follow this procedure will possibly result in the gun head becoming encased with mixed product.



ON ***OFF***

Refer to system manuals for start-up and shut-down procedures.

Section 2 - Operation: Start-Up Instructions

Initial Start-Up Procedure

With all material and air lines connected, the gun is now ready for start-up.

1. Remove the side blocks on the front housing of the gun, by removing screws.

2. Place separate clean containers under each individual side block. Open manual material valves (black arrow forward, see Fig. 4 and Fig. 5) on each side block simultaneously to allow trapped air to escape the hose and material to flow into the containers until all air is purged from the material system. **(See Fig. 3)**

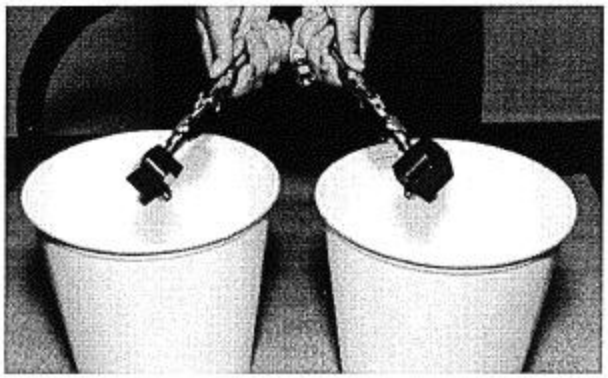


Fig. 3

3. Close manual material valves simultaneously. Material pressure gauges on each Heater should now register approximately equal pressure. If one side registers considerably more pressure than the other side, go to the high pressure side and bleed off some pressure by slightly opening the manual material valve on the side block over the container. Bleed pressure until both sides are approximately the same pressure.

4. Dispose of waste material properly and in accordance with chemical suppliers, instructions and local, state and federal regulations.

Before re-assembling side blocks, lubrication can be applied by dabbing a white lithium grease into holes inside of gun front housing and wiping grease over side block seals. Grease will purge itself when air valve is turned on at gun and gun is triggered.

5. Clean and lubricate side blocks and seals thoroughly and reassemble onto gun. Make certain that side block screws are tightened securely.

6. Turn purge air and material valves on at gun. **(See Fig. 4 and Fig. 5).**

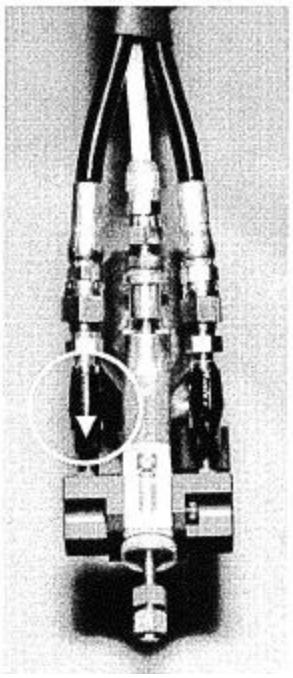


Fig. 4

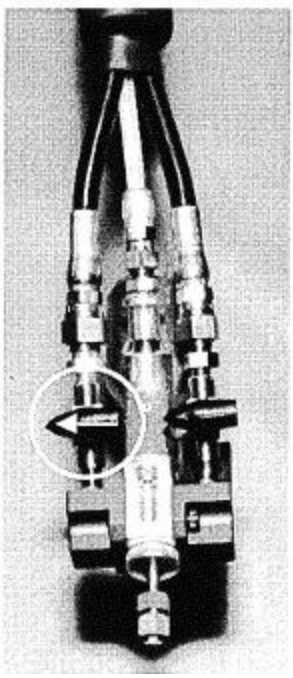


Fig. 5

Remember to dispense one to two gallons of material to clear the system of grease and plasticizer that was used during factory testing.

⚠ WARNING

The Polyol will expand in the hose if any normal operating pressures are bled off whenever the material is above approximately 75 degrees F. Hot polyol hoses should never be bled, by any method, to zero pressure for two reasons.

1. *The seals in the gun rely on high pressure to make their seal. The high pressure cannot be maintained if the pumps are attempting to apply this pressure through a hose full of expanded froth; therefore, the gun seal may leak.*

2. *Re-starting immediately after hot polyol has expanded in the system may result in spraying substantial amounts of "bad" foam. This will continue until the expanded polyol in the primary heater and the hose has been completely purged.*

Section 2 - Operation: Start-Up Instructions

Spray Technique

Always operate safely and follow all safety procedures outlined.

To achieve the optimum spray pattern for each application, several mixing chambers are available.

The standard mixing chamber supplied with your gun will be adequate for all but the smallest and largest applications.

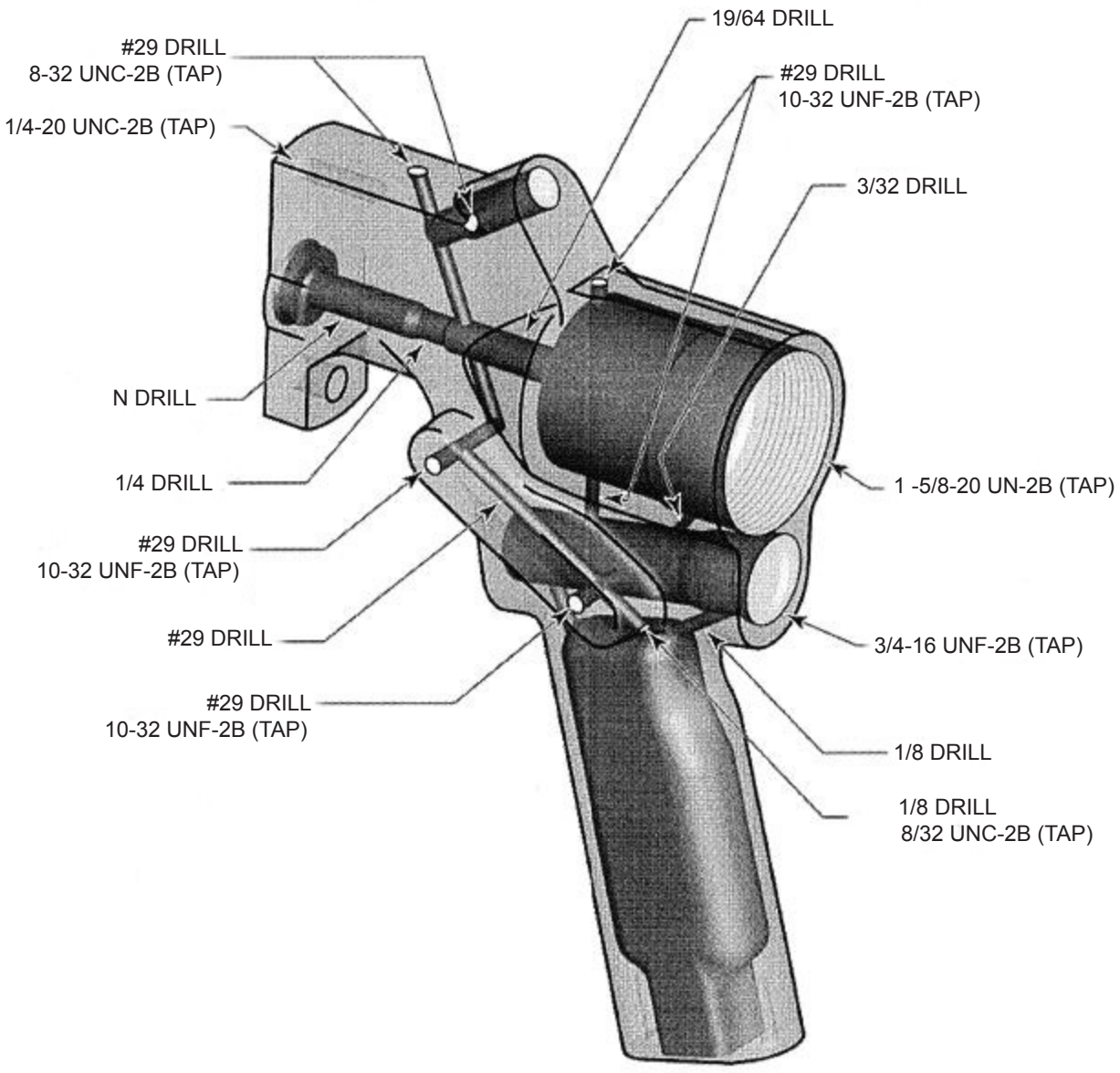
Foam rise and cure times will vary according to the material and substrate temperature. Higher material or substrate temperature will increase rise and cure times; lower material or substrate temperatures will decrease rise and cure times. Consult your chemical manufacturer's data specification sheets for their recommended spray temperatures. Under most circumstances, both components will be used at identical temperatures.

Higher pressures and temperatures may be used to increase material break-up, improve mixing and speed rise times. With hose lengths over 50 ft., or when material viscosities are high, higher material pump pressures may be necessary.

The gun air switch assembly MUST BE OPENED (down position) prior to spraying to provide air for trigger operation and purge air when the trigger is released.

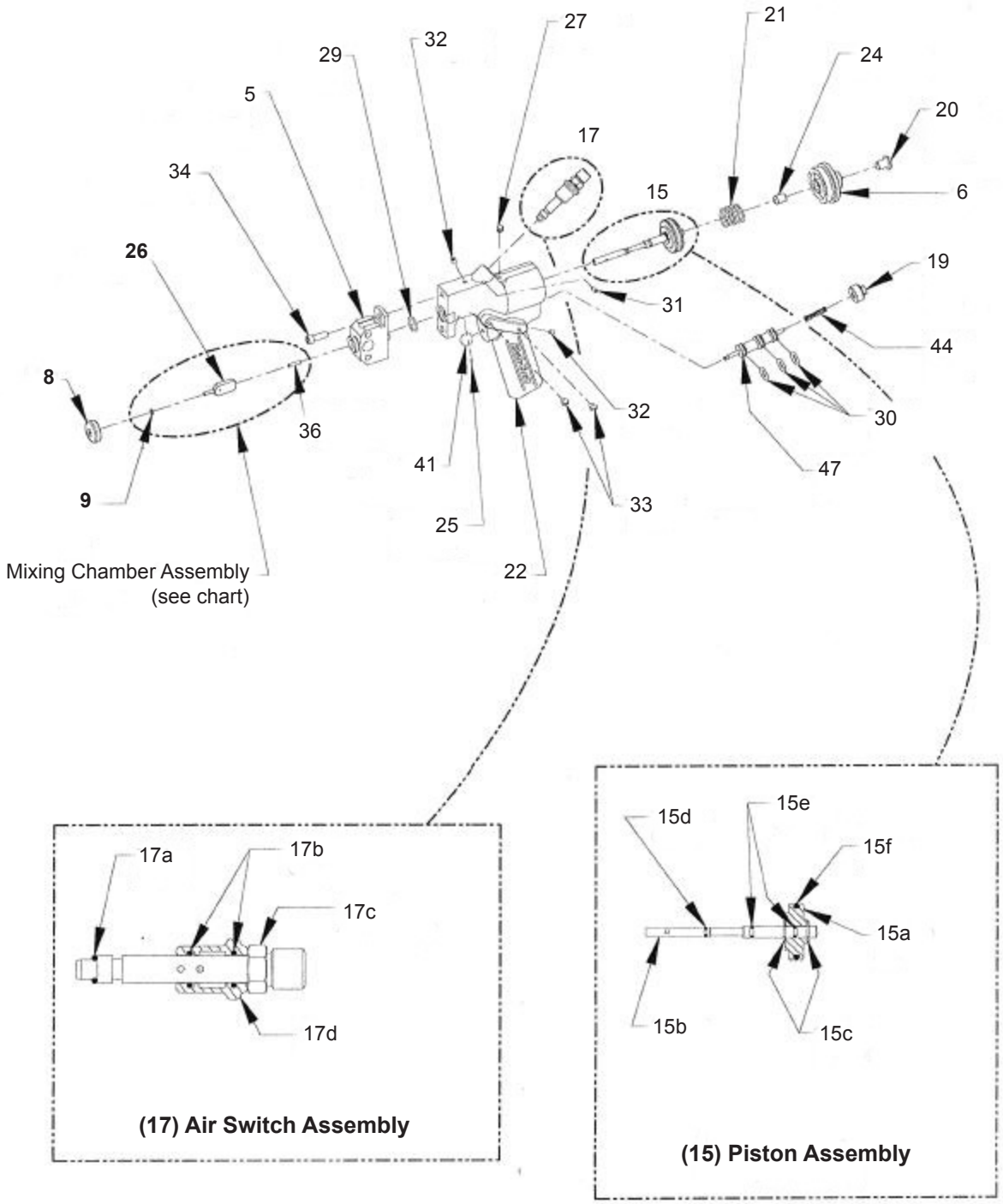
When spraying, the gun trigger may be depressed continuously, or triggered at the end of each stroke. A smooth, even layer is best achieved by moving the gun back and forth in a slow, even motion, overlapping the previous pass about 50 to 75 percent. DO NOT SPRAY OVER RISING FOAM! The ideal gun-to-surface distance is about 18 to 24 inches. Be sure to point the gun directly at the surface to be sprayed. Spraying at an angle to the surface will cause the foam to be rough and will generate overspray.

Section 3 - Parts and Illustrations:
Gun Handle Air Passage Locations and Thread Sizes



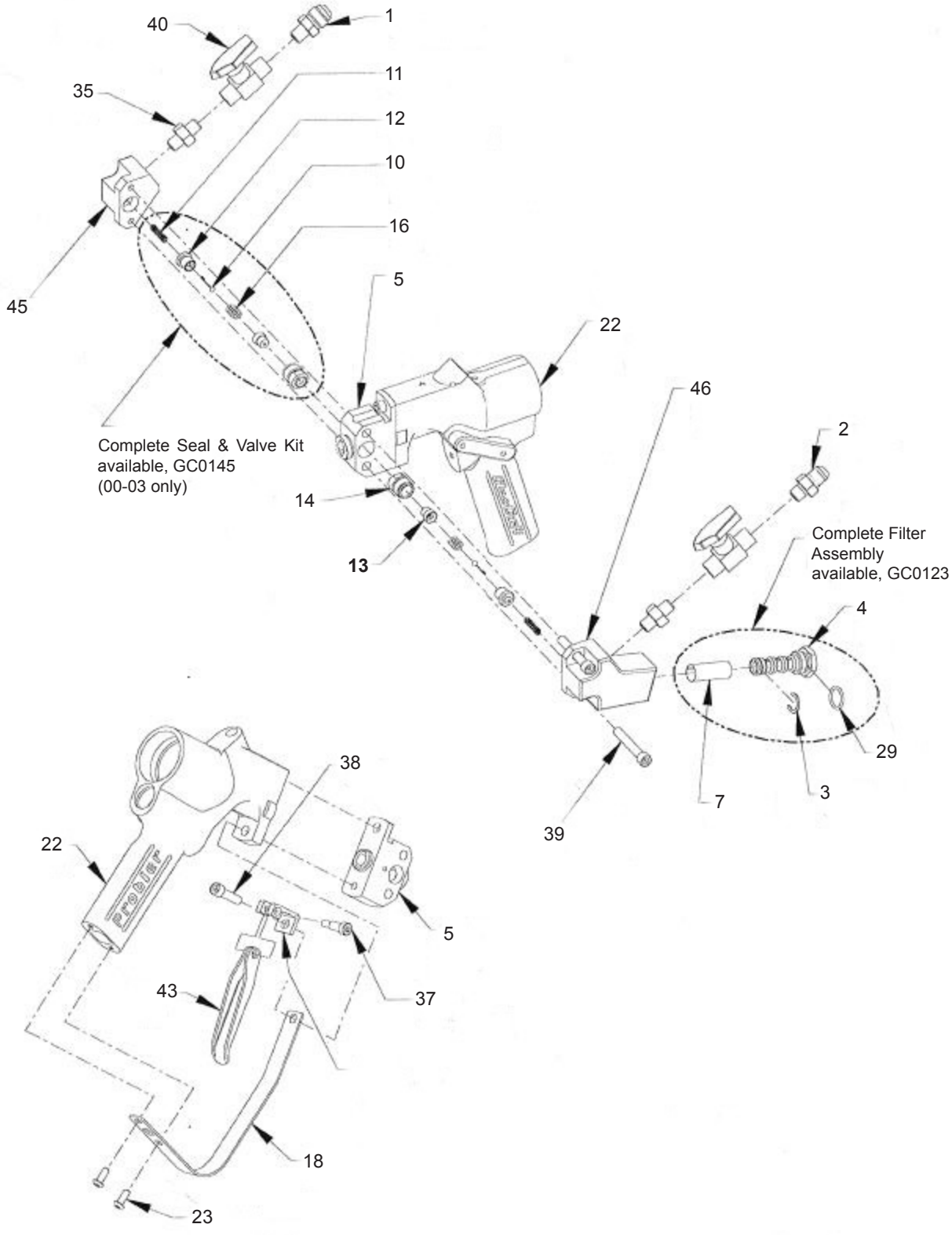
NOTE: All fractional dimensions recorded in inches

Section 3 - Parts and Illustrations: GCP1RX Round Probler Dispense Gun



Round Spray Probler Gun	8	9	13	26	Service Kit
GCP1R0	GC0114	GC2528	GC2540	GC2530	GC0166
GCP1R1	GC0114	GC2528	GC2540	GC2531	GC0167
GCP1R2	GC0114	GC2528	GC2540	GC2532	GC0167
GCP1R3	GC0114	GC2528	GC2540	GC2533	GC0167
GCP1R4	GC0115	GC2529	GC2541	GC2534	GC0168
GCP1R5	GC0115	GC2529	GC2541	GC2535	GC0168

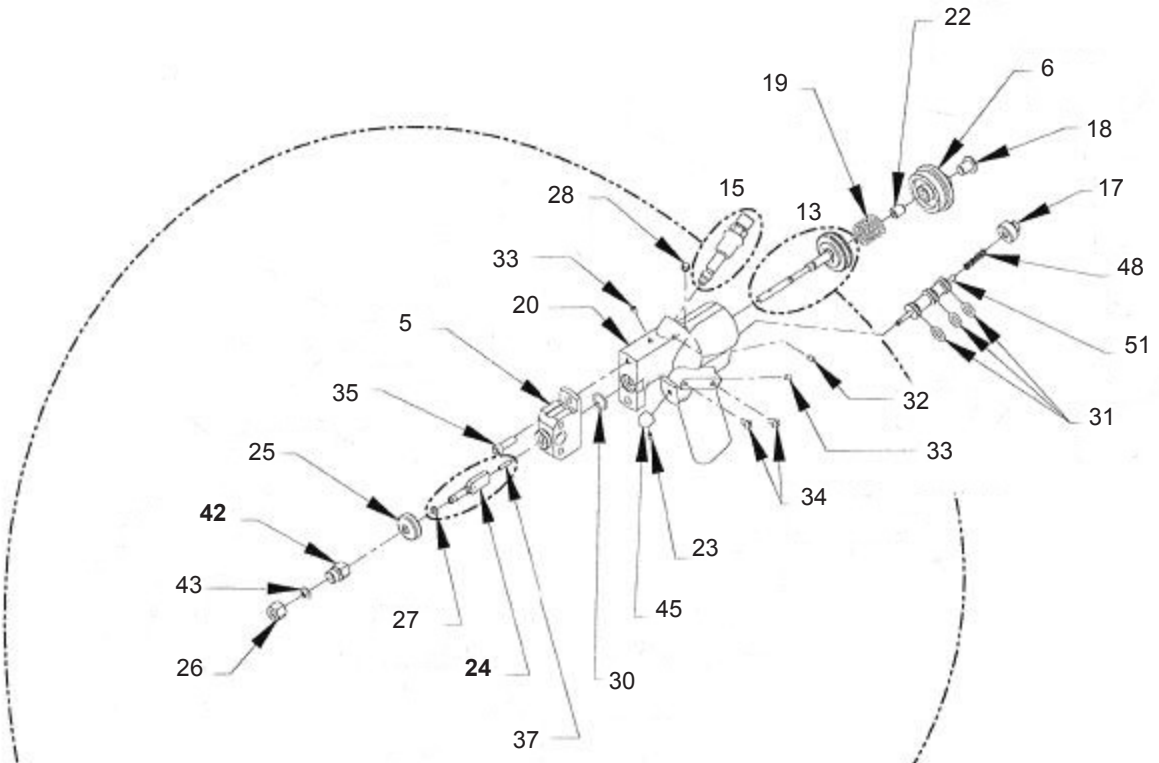
Section 3 - Parts and Illustrations: GCP1RX Round Probler Dispense Gun

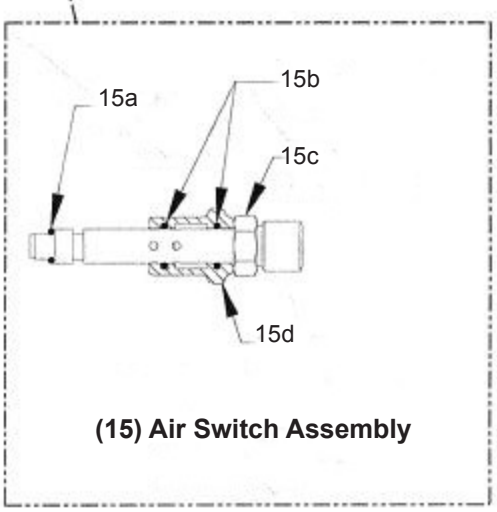


Section 3 - General Information: GCP1RX Round Probler Dispense Gun Parts List

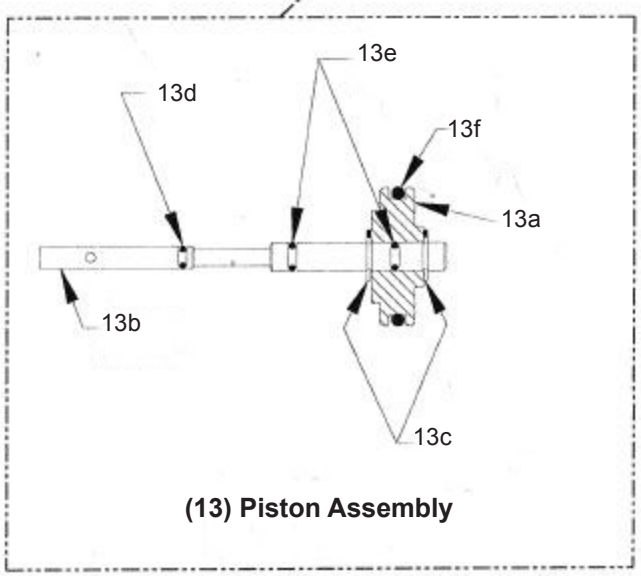
Ref. No.	Part No.	Description	Qty.
1	117634	SWIVEL, UNION, NO #6 JIC	1
2	117635	SWIVEL, UNION	1
3	GC0061	RETAINER, RING	1
4	GC0101	SUPPORT, STRAINER	1
5	GC0102	HOUSING, CHAMBER, MIXING	1
6	GC0110	CAP, REAR, PROBLER, HG	1
7	GC2547	STRAINER, PROBLER H.G	1
8		CAP, AIR, PROBLER; see matrix table on parts illustration	1
9		SEAL, CHAMBER, MIXING; see matrix table on parts illustration	1
10	GC2544	VALVE, BALL, CHECK,ASSY	2
11	GC2546	SPRING, COMPRESSION, .180 OD	2
12	GC2545	HOUSING, VALVE, CHECK	2
13		SEAL, VALVE, MIXING, HARD; see matrix table on parts illustration	2
14	GC2542	RETAINER, SEAL, VALVE, CHECK	2
15	GC0122	GUN, ASSY, PISTON, H.G.PRO	1
15a	GC0111	PISTON, H.G. PROBLER	1
15b	GC0112	SHAFT, PISTON	1
15c	GC0125	RING, RETAINING, 5/16	2
15d	168518	PACKING, O-RING	1
15e	C20988	PACKING, O-RING	2
15f	C20207	PACKING, O-RING	1
16	GC2543	SPRING, COMPRESSION, .300 OD	2
17	GC0128	SWITCH, ASSY, SWITCH, AIR	1
17a	110242	O-RING	1
17b	106555	O-RING	2
17c	GC0126	AIR SWITCH TUBE	1
17d	GC0127	AIR SWITCH SPOOL	1
18	GC0129	GUARD, TRIGGER, PROBLER	1
19	GC0130	PLUG, PLUG, VALVE, TRIGGER	1
20	GC0131	SCREW, BHDC, AS, .375-24X .500ZP	1
21	GC0132	SPRING, COMPRESSION .845	1
22	GC0134	HANDLE, PROBLER	1
23	GC0142	SCREW, BHDC, SS, 0.190-24X .500	2
24	GC0143	SCREW, SET, FLPT, 3/8 THD X 1/2	1
25	GC0144	SCREW, SET, FUDG, 0.138 X 1/4 in. L	1
26		MODULE, CHAMBR, MIXN, 0.035/.037; see matrix table on parts illustration	1
27	GC0331	FITTING, PLUG	1
28	GC2394	FITTING, FTG, ADAPTER, SWIVEL, 1/4NPT X 1/4 in. NPSM	1
29	115719	PACKING, O-RING, 015,VITON	2
30	110241	PACKING, O-RING	3
31	GC2079	SCREW, SET, HALF DOG, #8	1
32	GC2082	SCREW, SET, FLPT, #8, 1/4, SST	2
33	GC2087	SCREW, RDHD, CS, 0.190-32X 0.250 ZP	2
34	GC2149	SCREW, SHDC, SS, 0.250-20X 0.750	1
35	GC2196	FITTING, PIPE, NIPPLE, HEX, 1/8X1/8 NPT	2
36	GC2230	SCREW, SET, FTPT, 0.138-32X 0.625	1
37	GC2237	SCREW, SHOULDER, 1/4X10-24 STL	1
38	GC2250	SCREW, SHDC, AS, 0.250-20X 0.875ZP	1
39	GC2253	SCREW, SHDC, AS, 0.250-20-X1.500ZP	2
40	GC2337	VALVE, BALL, 2-WAY,1/8 NPTF; SST	2
41	GC2338	BUTTON, TRIGGER	1
42	GC2339	BRACKET, SUPPORT, TRIGGER	1
43	GC2340	TRIGGER	1
44	GC2341	SPRING, COMPRESSION, 0.240 OD	1
45	GC2380	BLOCK, SIDE, POLYOL	1
46	GC2549	BLOCK, SIDE, ISO	1
47	GC2390	TRIGGER	1

Section 3 - Parts and Illustrations: GCP1FX Flat Probler Dispense Gun





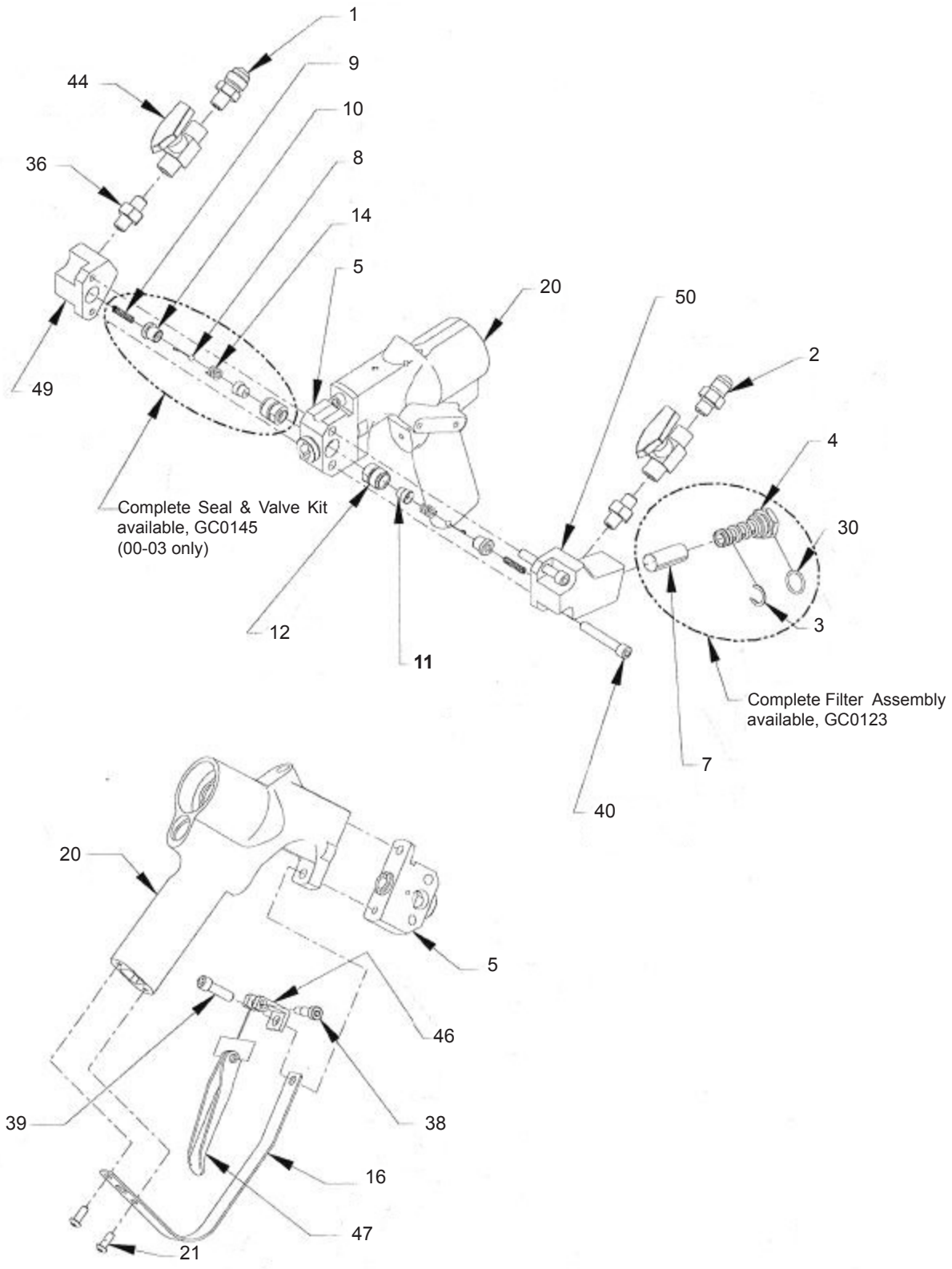
(15) Air Switch Assembly



(13) Piston Assembly

Flat Spray Probler Gun	11	24	42	Service Kit
GCP1F0	GC2540	GC2550	GC2332	GC0166
GCP1F1	GC2540	GC2551	GC2332	GC0167
GCP1F2	GC2540	GC2552	GC2332	GC0167
GCP1F3	GC2540	GC2553	GC2332	GC0167
GCP1F4	GC2541	GC2554	GC2333	GC0168
GCP1F5	GC2541	GC2555	GC2333	GC0168

Section 3 - Parts and Illustrations: GCP1FX P2 Dispense Gun



Section 3 - General Information: GCP1FX Flat Probler Dispense Gun Parts List

Ref. No.	Part No.	Description	Qty.
1	117634	SWIVEL, UNION, NO #6 JIC	1
2	117635	SWIVEL, UNION	1
3	GC0061	RETAINER, RING	1
4	GC0101	SUPPORT, STRAINER	1
5	GC0102	HOUSING, CHAMBER, MIXING	1
6	GC0110	CAP, REAR, PROBLER	1
7	GC2547	STRAINER, PROBLER	1
8	GC2544	VALVE, BALL, CHECK, ASSY	2
9	GC2546	SPRING, COMPRESSION, 0.180 OD	2
10	GC2545	HOUSING, VALVE, CHECK	2
11		SEAL, VALVE, MIXING; see matrix on parts illustration	2
12	GC2542	RETAINER, SEAL, VALVE, CHECK	2
13	GC0122	GUN, ASSY, PISTON	1
13a	GC0111	PISTON, H.G. PROBLER	1
13b	GC0112	SHAFT, PISTON	1
13c	GC0125	RING, RETAINING, 5/16	2
13d	168518	PACKING, O-RING	1
13e	C20988	PACKING, O-RING	2
13f	C20207	PACKING, O-RING	1
14	GC2543	SPRING, COMPRESSION, 0.300 OD	2
15	GC0128	SWITCH, ASSY, SWITCH, AIR	1
15a	110242	O-RING	1
15b	106555	O-RING	2
15c	GC0126	AIR SWITCH TUBE	1
15d	GC0127	AIR SWITCH SPOOL	1
16	GC0129	GUARD, TRIGGER	1
17	GC0130	PLUG, PLUG, VALVE, TRIGGER	1
18	GC0131	SCREW, BHDC, AS, 0.375-24X .500ZP	1
19	GC0132	SPRING, COMPRESSION .845	1
20	GC0134	HANDLE	1
21	GC0142	SCREW, BHDC, SS, 0.190-24X .500	2
22	GC0143	SCREW, SET, FLPT, 3/8 THD X 1/2	1
23	GC0144	SCREW, SET, FUDG, 0.138 X 1/4 in.L	1
24		MODULE, CHAMBER, MIXING; see matrix on parts illustration	1
25	GC0256	CAP, AIR, FLAT, SPRAY	1
26	GC0257	NUT, NOZZLE, CAD.FL.	1
27	GC0258	SEAL, CAP, AIR	1
28	GC0331	FITTING, PLUG	1

Ref. No.	Part No.	Description	Qty.
29	GC2394	FITTING, FTG, ADAPTER, SWIVEL, 1/4 in. NPT X 1/4 in. NPSM	1
30	115719	PACKING, O-RING, 015, VITON	2
31	110241	PACKING, O-RING	3
32	GC2079	SCREW, SET, HALF DOG, #8	1
33	GC2082	SCREW, SET, FLPT, #8, 1/4, SST	2
34	GC2087	SCREW, RDHD, CS, 0.190-32X .250 ZP	2
35	GC2149	SCREW, SHDC, SS, 0.250-20X .750	1
36	GC2196	FITTING, PIPE, NIPPLE, HEX, 1/8 X 1/8 NPT	2
37	GC2230	SCREW, SET, FTPT, 0.138-32 X 0.625	1
38	GC2237	SCREW, SHOULDER, 1/4 X 10-24 STL	1
39	GC2250	SCREW, SHDC, AS, 0.250-20 X .875ZP	1
40	GC2253	SCREW, SHDC,AS, 0.250-20 X1.500ZP	2
42		CONNECTOR; see matrix on parts illustration	1
43	GC2335	SEAL, NOZZLE, FLUID	1
44	GC2337	VALVE, BALL, 2-WAY, 1/8 NPTF SST	2
45	GC2338	BUTTON, TRIGGER	1
46	GC2339	BRACKET, SUPPORT, TRIGGER	1
47	GC2340	TRIGGER, PROBLER	1
48	GC2341	SPRING, COMPRESSION, 0.240 OD	1
49	GC2380	BLOCK, SIDE, POLYOL	1
50	GC2549	BLOCK, SIDE, ISO	1
51	GC2390	TRIGGER	1

Daily Shut-Down Procedure

⚠ WARNING

Before attempting to perform any maintenance on this gun, relieve All Fluid and Air Pressures!

- To relieve fluid and air pressures:
- Turn OFF all air supplies at system except gun trigger air.
- Trigger the gun until all fluid pressures have been relieved.
- Turn OFF the gun trigger air at the system.
- Trigger the gun until all trigger air pressure has been relieved.

Perform Gun maintenance as follows:

1. Check for leaking seals, p/n GC2540 OR GC2541:

- Turn OFF the gun incoming air by closing gun air switch.
- Wait approximately 10 - 20 seconds, then turn ON the incoming air by opening gun air switch.
- Repeat two or three times.
- If any material has been purged from the gun, the seals are leaking.
- Correct leaks by replacing the seals and re-checking.

2. Check the material valves, p/n GC2337 for any leaks:

- Turn OFF both material valves.
- Trigger the gun several times.
- Wait approximately 10-20 seconds.
- Trigger the gun several times.
- If additional material is purged, the material valves are leaking.
- Correct the leaks by taking off black knobs and turning packing 1/8 in. to 1/4 in. turns at a time until the leak has stopped. Re-check.

3. Check side blocks

- Turn OFF the air switch on the gun.

⚠ WARNING

Before removing the side blocks make certain that both material valves are in the OFF positions and trigger several times to depressurize gun!

If the material valves are on when the side blocks are removed the gun will quickly become encased in urethane!

⚠ WARNING

Point gun side blocks down, away from all personnel. Existing fluid pressures could cause material to exit the side blocks with considerable force.

- Take the side blocks off by removing screws.

- Examine the sides of the mixing chamber for scratches and/or material build-up. Carefully, without scratching the seal surfaces (sides), remove any accumulated material. Solvent can be used to wash accumulated material off of chamber, side blocks, etc. Keep the gun chamber tilted toward the ground so that solvent does not run back into gun. Certain solvents will attack o-rings on chamber shaft causing swelling and deterioration of o-rings.

- Place generous amounts of high quality, white lithium grease in each side of the gun front housing and on the side block seals.

- Use correct size drill bit to clean out the mixing chamber exit passage. Use correct size drill bit to clean the inlet side holes of the mixing chamber taking care not to scratch the mixing chamber's polished surfaces. (refer to the drill chart)

- Re-assemble the side blocks and tighten the screws. Grease should appear at the tip of the mixing chamber.

DO NOT open the air switch on the gun because this will purge grease from the gun. The grease should be allowed to remain in the gun overnight.

Mixing Chamber Chart

Standard								
		ROUND			FLAT			
OUTPUT [1] (lbs./min.)		CHAMBER ONLY	CHAMBER ASSEMBLY [2]		CHAMBER ONLY	CHAMBER ASSEMBLY [2]		SIDE BLOCK SEAL
3-6		GC2530	GC0103		GC2550	GC0260		GC2540
5-9		GC2531	GC0104		GC2551	GC0261		GC2540
10-20		GC2532	GC0105		GC2552	GC0262		GC2540
12-30		GC2533	GC0106		GC2553	GC0263		GC2540
20-45		GC2534	GC0107		GC2554	GC0264		GC2541
30-60		GC2535	GC0108		GC2555	GC0265		GC2541

[1] Outputs will vary with hose length, material viscosity and pressure.
[2] Chamber Assembly consists of: mixing chamber air cap seal, mixing chamber, screw, and cleaning drill bit.

Cleaning Drill Chart

ROUND MIXING CHAMBER	FLAT MIXING CHAMBER		MIXING CHAMBER NOZZLE CLEANING DRILL			MIXING CHAMBER SIDE HOLE CLEANING DRILL	
GC2530	GC2550		GC0074	0.052		GC0077	0.029
GC2531	GC2551		GC0070	0.0595		GC0073	0.042
GC2532	GC2552		GC0071	0.070		GC0074	0.052
GC2533	GC2553		GC0072	0.086		GC0070	0.0595
GC2534	GC2554		GC0075	0.094		GC0071	0.070
GC2535	GC2555		GC0076	0.116		GC0072	0.086

GC0167 Gun Service Kit

For GCP1R1, GCP1R2, GCP1R3
GCP1F1, GCP1F2, GCP1F3

Part No.	Description	Qty.
168518	O-RING	1
C20988	O-RING	2
110242	O-RING	1
106555	O-RING	2
115719	O-RING	2
C20207	O-RING	1
110241	O-RING	3
GC2547	FILTER SCREEN	1
GC0061	SNAP RING	1

Part No.	Description	Qty.
GC2540	SIDE BLOCK SEAL	2
GC0070	DRILL BIT	1
GC0071	DRILL BIT	1
GC0072	DRILL BIT	1
GC0073	DRILL BIT	1
GC0074	DRILL BIT	1
GC0175	PIN VISE	1
GC0086	BALL DRIVER	1

GC0168 Gun Service Kit

For GCP1R4, GCP1R5, GCP1F4, GCP1F5

Part No.	Description	Qty.
168518	O-RING	1
C20988	O-RING	2
110242	O-RING	1
106555	O-RING	2
115719	O-RING	2
C20207	O-RING	1
110241	O-RING	3
GC2547	FILTER SCREEN	1
GC0061	SNAP RING	1

Part No.	Description	Qty.
GC2541	SIDE BLOCK SEAL	2
GC0071	DRILL BIT	1
GC0072	DRILL BIT	1
GC0075	DRILL BIT	1
GC0076	DRILL BIT	1
GC0175	PIN VISE	1
GC0086	BALL DRIVER	1

Gun Repair Kit

For all Probler Guns

Part No.	Description	Qty.
168518	O-RING	1
C20988	O-RING	2
110242	O-RING	1
106555	O-RING	2
115719	O-RING	2
C20207	O-RING	1
110241	O-RING	3
GC2540	SIDE BLOCK SEAL	2
GC2541	SIDE BLOCK SEAL	2

Part No.	Description	Qty.
GC2528	MIXING CHAMBER SEAL	1
GC2529	MIXING CHAMBER SEAL	1

Section 3 - General Information: Maintenance

Refer to specific system user manuals for complete system installation.

Parts Replacement Procedure

⚠ WARNING

Before attempting to perform any maintenance on this gun OR before removing the side blocks, make certain that both gun material valves are in the OFF positions and trigger gun several times to depressurize gun!

If the material valves are on when side blocks are removed, the gun will quickly become encased in urethane!

1. Read each procedure entirely before beginning and refer to the illustrations as needed.
2. Flush and clean all chambers and passages as they become accessible.
3. Clean all parts before assembly.
4. Replace all o-rings and seals with new parts from the appropriate kit.
5. Inspect all parts for wear or damage and replace as required with new *genuine GlasCraft replacement parts from your authorized GlasCraft distributor.*
6. Inspect all threads for wear or damage and replace as required.
7. Tighten all threaded parts securely, but not excessively, upon assembly.
8. Lightly lubricate all o-rings and threads with lithium grease.
9. Check all springs for resilience. They should return quickly to their original (new) length.

Routine Care

⚠ WARNING

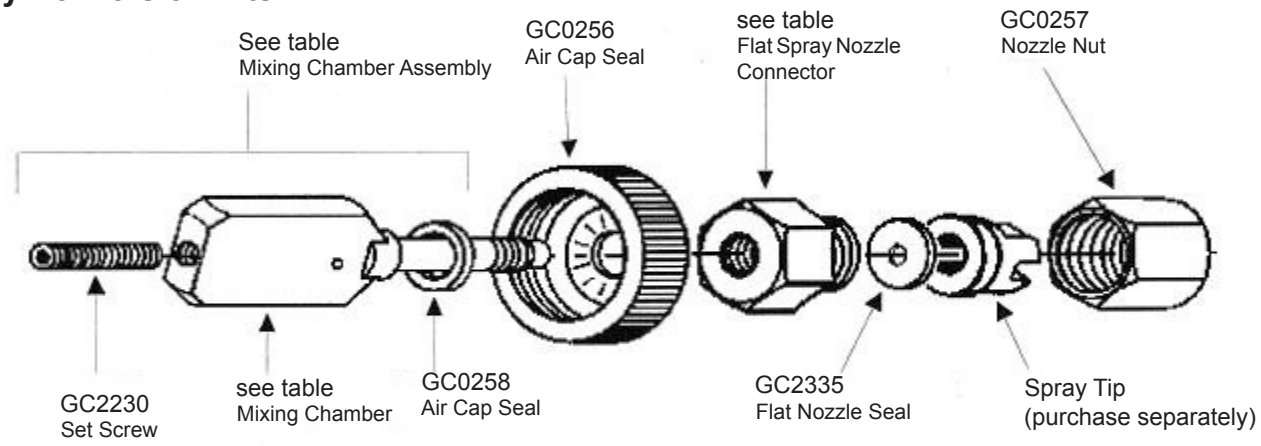
Before attempting to perform any maintenance on this gun OR before removing side blocks, make certain that both gun material valves are in the fully OFF positions and trigger several times to depressurize gun!

If the material valves are on when side blocks are removed, the gun will quickly become encased in urethane!

It is recommended that the following service be performed on a daily basis.

1. Clean the gun using a brush and an appropriate clean solvent.
2. Inspect the side block seals, p/n GC1927, making certain they are clean and free of scratches, nicks or foreign material. Clean and replace as required.
3. Remove, clean or replace the filter screen, p/n GC1924.
4. Maintain a reasonable stock level of “wear” items such as seals and o-rings. (see Service & Repair Parts Kits listed in Parts & Illustrations section.)

Flat Spray Conversion Kits



FLAT SPRAY CONVERSION KIT	MIXING CHAMBER ASSEMBLY	MIXING CHAMBER	NOZZLE CONNECTOR
GC2327	GC0261	GC2551	GC2332
GC2328	GC0262	GC2552	GC2332
GC2329	GC0263	GC2553	GC2332
GC2330	GC0264	GC2554	GC2333
GC2331	GC0265	GC2555	GC2333

Section 4 - Notes

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited waranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.
Phone: 612-623-6921 or Toll Free: 1-800-328-0211 Fax: 612-378-3505

PARA EFETUAR ENCOMENDAS OU PARA ASSISTÊNCIA TÉCNICA, contate o seu distribuidor da Graco.

POUR PLACER UNE COMMANDE OU DEMANDER DU SERVICE, contactez votre distributeur Graco.

PARA REMITIR UN PEDIDO O SOLICITAR SERVICIO, póngase en contacto con el distribuidor de Graco.

IF YOU HAVE AN EQUIPMENT PROBLEM...

If you have a problem that requires Distributor or GlasCraft Service Department help, gather the following information *BEFORE* you pick-up the telephone.

	Model No.	Serial No.
SPRAY GUN		
MATERIAL PUMP		
TYPE of MATERIAL BEING SPRAYED		
SYSTEM GAUGE PRESSURES		
ISO HEATER GAUGE		PSI
POLY HEATER GAUGE		PSI
MATERIAL PUMP AIR MOTOR		PSI
MAIN AIR LINE PRESSURE at SYSTEM		PSI
MAIN AIR LINE VOLUME		CFM
COMPRESSOR SIZE		HP
COMPRESSOR to SYSTEM SUPPLY LINE SIZE		INCHES

For Your Reference

DATE PURCHASED _____
DISTRIBUTOR _____
_____
_____

CONTACT _____
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